

REGISTRATION AND INFORMATION PACKAGE
FOR THE
1999 MILITARY/AEROSPACE (TRANSPORTATION) COTS CONFERENCE

August 25-27, 1999

RADISSION HOTEL BERKELEY MARINA, CA

ENCLOSURE 1: **Committee Membership & Preliminary Agenda**
 A final Agenda will be provided at the Conference.

ENCLOSURE 2: **Registration Form:**
 This form must be filled out and returned **NO LATER THAN AUGUST 15, 1999** along with a non-refundable Registration Fee of \$300.00 (after this date the fee will be \$375.00). Checks should be made payable to The C3I, Inc. **Credit Cards not accepted.** Completed form and payment should be sent to:

Edward B. Hakim
The C³I, Inc.
2412 Emerson Avenue
Spring Lake, NJ 07762
Tele & Fax (732) 449-4729

Registration confirmation will **not** be mailed. Receipts will be provided at the conference

SEE EMAIL **Tutorial Information and Registration Form**
ATTACHMENT:

SEE EMAIL **Conference Location (Hotel Information Maps)**
ATTACHMENT: All Sessions of the Conference will be held at the Radission Hotel where a block of rooms is being held for the Conference attendees. To obtain the \$99.00 rate, mention you are attending the COTS Conference. To obtain this rate the hotel must be contacted no later than August 5, 1999.

**1999 MILITARY/AEROSPACE (TRANSPORTATION) COTS
CONFERENCE**

ORGANIZED BY
THE CENTER FOR COMMERCIAL COMPONENT INSERTION,
INC.
(THE C³I)

Sponsored by:
THE JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY
AND
NAVAL SURFACE WARFARE CENTER

TECHNICAL PROGRAM COMMITTEE

Stan Purwin (Chairman)
Johns Hopkins University APL

Chuck Pagel, Naval Surface Warfare Center-Crane Division
Tom Stadterman, Army Materiel Systems Analysis Activity
Nick Lycoudes, Motorola Semiconductor Products Sector

1999 MILITARY / AEROSPACE (TRANSPORTATION) COTS CONFERENCE

PRELIMINARY AGENDA

CONFERENCE SITE: Radisson Hotel Berkeley Marina, Berkeley, CA

DATES: August 25-27, 1999 (Wednesday - Friday)

Wednesday August 25, 1999 -- 8:00 A.M. - 7:00P.M.

7:00 - 8:00 CONFERENCE CHECK-IN & REFRESHMENTS

8:00 - 8:15 WELCOMING REMARKS - Conference Chairman:

Edward B. Hakim, The Center for Commercial Component
Insertion, Inc. (The C³I), Spring Lake, NJ

SESSION 1: COTS - ACCEPTANCE & USAGE

Wednesday, August 25, 1999 -- 8:15 A.M. to 11:45 A.M.

**Session Chairman: Stanley Purwin, Johns Hopkins University Applied Physics
Laboratory, Laurel, MD**

8:15 - 8:45 Use of COTS Technology in Military Systems
(1.1) Robert McCaig, Lockheed Martin Federal Systems, Manassas, VA

8:45 - 9:15 Technology Qualification vs. Part Qualification
(1.2) Joel B. Rousseau and Eugene R. Hnatek, Compaq Computer Corp.

9:15 - 9:45 Development and Application of a Standard for Suppliers and Part
(1.3) Qualification/Monitoring for Plastic Encapsulated Microcircuits and
Semiconductors
Francis X. Edwards, Raytheon Systems Company, Sudbury, MA

9:45 - 10:00 Refreshment Break

10:00 - 10:30 Application of COTS Products in Military and Aerospace Systems:
(1.4) Best Practices for COTS Life Cycle Management and Supportability
Dinesh Verma, Lockheed Martin Federal Systems, Manassas, VA

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| 10:30 - 11:00
(1.5) | Evaluation and Management of Commercial Parts
David Locker, Army AMCOM and Bill Glover, JAVELIN PM Office, Redstone Arsenal, AL, Jerry Sellers and Philip Wood, Lockheed Martin Electronics and Missiles, Orlando, FL and Wendy Good, Northrop-Grumman, Baltimore, MD |
| 11:00 - 11:30
(1.6) | Effective Strategies for Long Term COTS Support Planning
Dennis J. Genaw, Loskheed Martin GES, Moorestown, NJ |
| 11:30 - 11:45 | COTS - ACCEPTANCE & USAGE PANEL
Session 1 Presenters |
| 12:00 - 1:00 | Lunch |

SESSION 2: RELIABILITY Wednesday, August 25, 1999 -- 1:00 P.M. - 3:15 P.M.

Session Chairman: Bernard Pietrucha, Lucent Technology, Bell Laboratories, Whippany, NJ

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| 1:00 - 1:45
(2.1) | Evaluating the Reliability of Commercial-Off-The-Shelf (COTS) Items
Ned H. Criscimagna, IIT Research Institute, Lanham MD |
| 1:45 - 2:30
(2.2) | Reliability of The microSMD - A Wafer Level Chip Scale Package
Luu Nguyen, Nikhil Kelkar, Ranjan Mathew and Hem Takiar, National Semiconductor Corp., Santa Clara, CA |
| 2:30 - 3:15
(2.3) | The Use of Physics-of-Failure Analysis to Predict the Reliability of Semiconductor Devices
Bob Knoell and Rick Adams, Visteon Automotive Systems and Patrick McCluskey, University of Maryland |
| 3:15 - 3:30 | Refreshment Break |

SESSION 3: DEVICE TECHNOLOGY Wednesday, August 25, 1999 -- 3:30 P.M. - 5:15 P.M.

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| 3:30 - 4:15
(3.1) | Wafer Level Underfill of Flip Chip Packaging
Luu Nguyen, National Semiconductor Corp., Santa Clara, CA |
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4:15 - 5:00 Effectiveness of Conformal Coatings as Moisture Barriers
(3.2) for Plastic Encapsulated Microcircuits
 Francis X. Edwards, Raytheon Systems Company,
 Sudbury, MA

5:00 - 5:15 RELIABILITY and DEVICE TECHNOLOGY PANEL
 Session 2 and 3 Presenters

5:30 - 7:00 **Wednesday Evening Cocktail Reception**

Thursday, August 26, 1999 -- 8:00 A.M. - 5:15 P.M.

7:00 - 8:00 A.M. CONFERENCE CHECK-IN & REFRESHMENTS

SESSION 4: PARTS MANAGEMENT Thursday, August 26, 1999 -- 8:00 A.M. to 12:15 P.M.
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Session Chairman: Edward Reichentahl, Sikorsky Aircraft Corp., Trumbull, CT

8:00 - 8:45 Navigating COTS to New Dephts
(4.1) Mary Johnson, Lockheed Martin Navigation and Gravity Systems,
 Mitchel Field, NY

8:45 - 9:30 Strategic Development for Global Supply Chain Systems
(4.2) Nancy Wendorf, Motorola, Scottsdale, AZ

9:30 -10:15 The Commercial Avionics Industry's Approach to using Commercial
(4.3) Microcircuits in Hi-Rel Applications
 John Fink, Honeywell Commercial Aviation Div., Coon Rapid, MN

10:15 -10:30 Refreshment Break

10:30-11:15 NAVSEA Parts Requirements and Application Manual
(4.4) Tom Davidson, Naval Surface Warfare Center, Crane, IN

11:15 -12:00 Manufacturer Assessment Process
(4.5) Roxy Kendall, Celestica Corp., Toronto, Canada

12:00 - 12:15 PARTS MANAGEMENT PANEL
 Session 4 Presenters

12:15 - 1:00 Lunch

SESSION 5: OBSOLECENCE**Thursday, August 26, 1999 -- 1:00 P.M. - 3:30 P.M.****Session Chairman: Tom Davidson, Naval Surface Warfare Center, Crane, IN**

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| 1:00 - 1:45
(5.1) | Technology Refreshment of COTS-Based Military Systems
Galen Plunkett, Lockheed Martin Underseas Systems, Manassas, VA |
| 1:45 - 2:30
(5.2) | Custom Engineered Solutions, Sustainment
Kerry Stevens and Jim DeCamp, Naval Undersea Warfare Center, Keyport, WA |
| 2:30 - 3:15
(5.3) | Using a New COTS Approach in Solving DoD Legacy Electronic Systems Obsolescence
Gary L. Fitzhugh, CPU Technology, Inc., Pleasanton, CA |
| 3:15 - 3:30 | Refreshment Break |

SESSION 6: PEMs IN SPACE**Thursday, August 26, 1999 -- 3:30 P.M. - 5:15 P.M.**

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| 3:30 - 4:15
(6.1) | Ensuring Performance/Reliability of Plastic Encapsulated Microcircuits (PEMs) in Space Applications is Mission Specific
Kim A. Cooper and Andrew F. Moor, Johns Hopkins University Applied Physics Laboratory, Laurel, MD and R. David Gerke, Mike Sandor and Shri Agarwal, Jet Propulsion Laboratory, Pasadena, CA |
| 4:15 - 5:00
(6.2) | The Effects of Space Radiation and Burn-In on Plastic Encapsulated Semiconductors
John Wall, Defence Evaluation and Research Agency, Farnborough, UK and Richard Sharp and Lee Pater, AEA Technology, Oxfordshire, UK |
| 5:00 - 5:15 | Obsolescence and PEMs IN SPACE PANEL
Session 5 and 6 Presenters |

Friday August 27, 1999 - 8:30 A.M. - 12:00 P.M

8:00 - 8:30 A.M. CONFERENCE CHECK-IN & REFRESHMENTS

SESSION 7: PRODUCT EVALUATION Friday, August 27, 1999 -- 8:30 A.M. - 12:00 P.M.
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Session Chairman: Kerry Stevens, Naval Undersea Warfare Center, Keyport, WA

8:30 - 9:15 The Use of Highly Accelerated Stress Tests (HAST) for
(7.1) PEMs Qualification and Reliability Prediction
 James Sweet, Sandia National Laboratories, Albuquerque, NM

9:15 - 10:00 Understanding Electronic System Vibration Life Capabilities
(7.2) John E. Starr, Engineering Consultant, Plymouth, MN

10:00 - 10:15 Refreshment Break

10:15 - 11:00 An Advanced Packaging Solution for Navy Shipboard Electronics -
(7.3) CITADEL
 Roger R. Smith, Naval Surface Warfare Center, Crane, IN

11:00 - 11:45 Acoustic Microscopy Inspection Techniques (C-Mode Scanning of
(7.4) Multilayered Devices)
 Allen Hawes, Naval Surface Warfare Center, Crane, IN

11:15 - 12:00 PRODUCT EVALUATION PANEL
(7.5) Session 7 Presenters

12:00 - 1:00 Lunch

ADJOURN CONFERENCE

**1999 MILITARY/AEROSPACE (TRANSPORTATION)
COTS CONFERENCE**

REGISTRATION FORM

NAME: _____

AFFILIATION: _____

AFFILIATION ADDRESS: _____

TELEPHONE: _____ **FAX:** _____

EMAIL: _____

Enclosed is \$300.00 (non-refundable) to cover Conference Registration Fee.

Foreign Conference attendees must use American Dollars, Travelers Checks or a check drawn against a US Institution.

Credit Cards NOT Accepted.

Please make checks payable to The C3I, Inc. & mail with this form to:

**Edward B. Hakim
The Center for Commercial Component Insertion (C3I, Inc)
2412 Emerson Avenue
Spring Lake, NJ 07762**

Registration Fee Received after August 15, 1999 will be \$375.00

Radisson Hotel Berkeley Marina, Berkeley, CA reservations can be made by dialing (510) - 548 - 7920. The \$99.00 room rate is available by requesting the COTS Conference rate. To obtain this rate the hotel must be contacted no later than August 5, 1999.

**TRANSPORTATION OPTIONS
TO THE
RADISSON
HOTEL BERKELEY MARINA**

200 Marina Boulevard, Berkeley, California 94710

**SHUTTLE COMPANIES
SAN FRANCISCO AND OAKLAND AIRPORTS**

Reservations Required - Hotel Guests may call Guest Services for assistance in Making your Reservations.
24 Hours Advance Notice is recommended.

BAYPORTER EXPRESS 415 - 467 - 1800
Oakland \$12.00
S.F.O. \$13.00

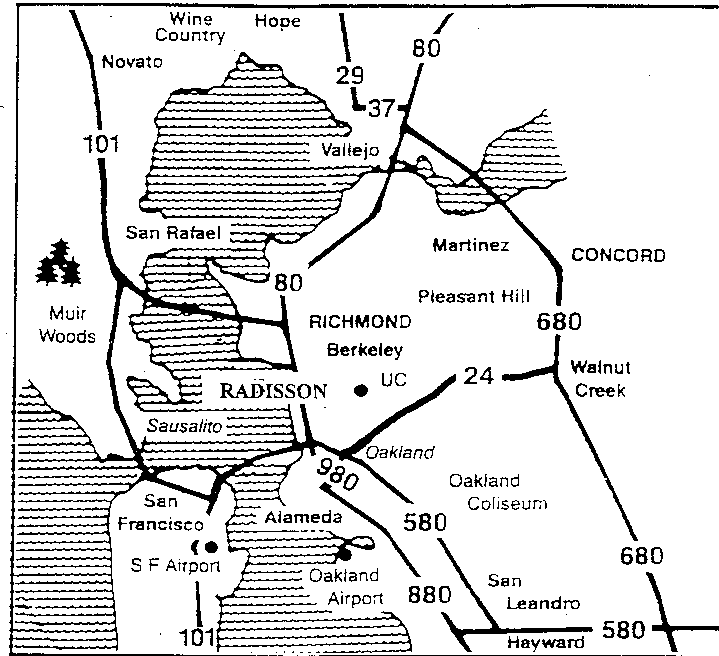
AIRPORT CONNECTION 650 - 401 - 8300
Oakland \$25.00 - 65.00
S.F.O. \$35.00 - 65.00

BAY AREA SHUTTLE 510 - 444 - 2211
Oakland \$22.00 - 26.00
S.F.O. \$35.00 - 45.00

TAXI SERVICES

NATIONAL TAXI 510 - 843 - 7520
Oakland \$33.00 Prices are Approximate
S.F.O. \$50.00

FRIENDLY CAB 510 - 655 - 0708
Oakland \$33.00 Prices are Approximate
S.F.O. \$50.00



DIRECTIONS TO ↑ ↓

Radisson Hotel Berkeley Marina

From San Francisco:

Take **101 North** to **I-80 East** staying left once over and across the Bay Bridge. Exit at University Ave. Make a U-Turn at the first traffic light (6th St.) You will be heading West toward the Bay on University. Make a **right on Marina Blvd.** Hotel entrance is about one quarter of a mile ahead on your left.

From Oakland:

Take **Hwy 880 North** to **Hwy 580 West** toward San Francisco, then to **80 East Berkeley.** Exit at **University Ave.** Make a U-Turn at the first traffic light (6th St.) You will be heading West toward the Bay on University. Make a **right on Marina Blvd.** Hotel entrance is about one quarter of a mile ahead on your left.

From Sacramento:

Take **I-80 South** to Berkeley. Exit at **University Ave.** Make the first left at the stop sign after looping around the exit ramp onto University Ave. Make a right onto Marina Blvd. Hotel entrance is about one quarter of a mile ahead on your left.